



BTC Price

By Hera K.
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Before Begin



Data Science
Bootcamp Graduate

// FLATIRON SCHOOL

Bachelor
Chemistry



Hera K.

Data Scientist





Agenda

01

THE HISTORY

02

THE PROBLEM

03

THE DATA

04

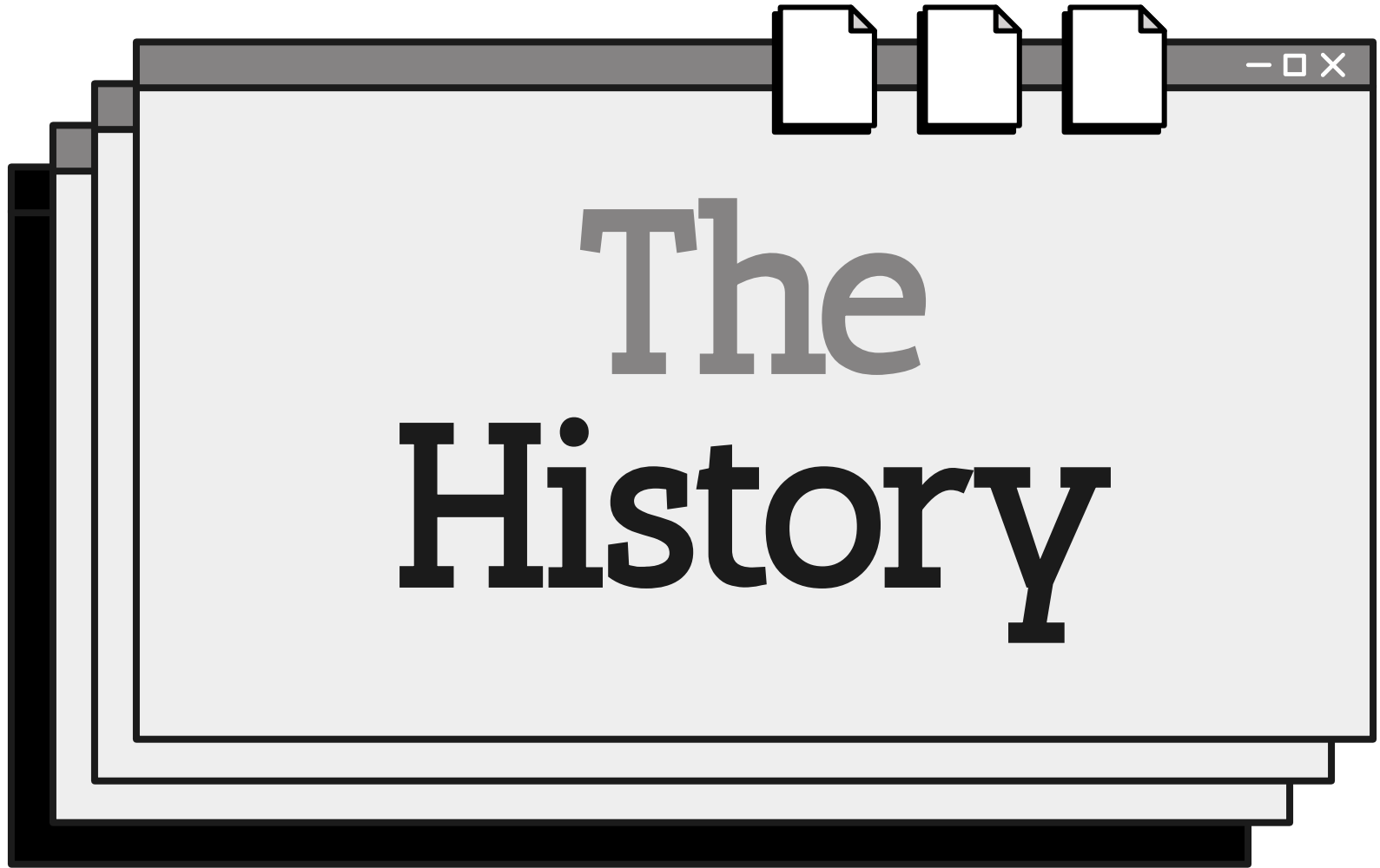
METHODS & MODEL

05

EVALUATION

06

FURTHER



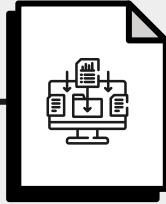
BTC History - 2008→ 2013



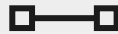
2008



Invented by
Satoshi
Nakamoto



2009



The currency
began its use as
open-source



2011



The largest
decrease as a
percentage of
the coin's value.



2013



BTC is \$ 1 in
globe market

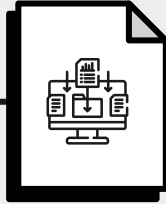
BTC History - 2017 → Future



2017



A rise in prices,
bitcoins were
worth $\pm \$998$



2021



El Salvador first
country adopted
BTC as legal
tender



2023



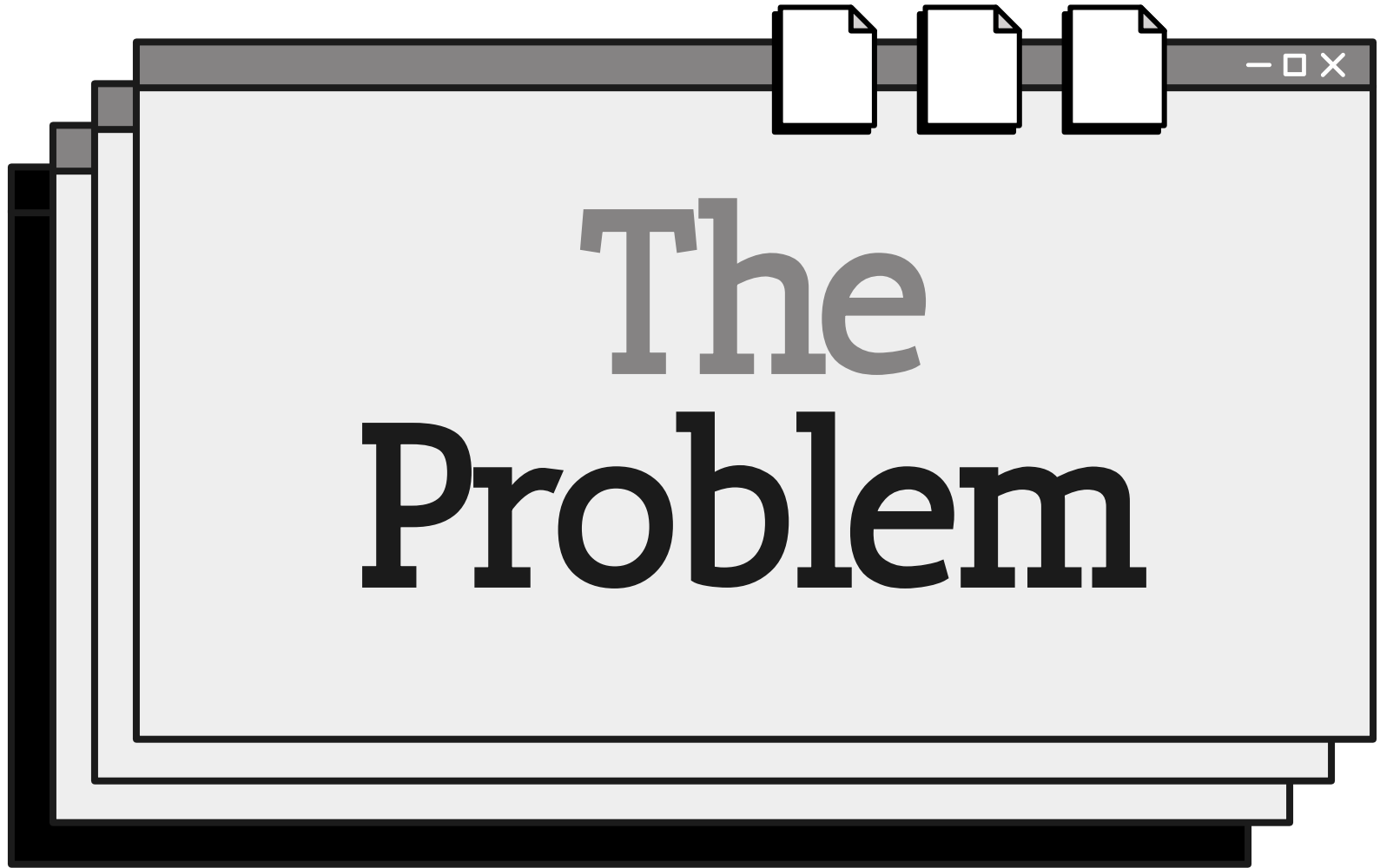
Tesla sold % 75
of its BTC
holdings



Future.....



Give hope for
future money
globally



Work System BTC ?

Blockchain
Technology



Immutable and
decentralized system

Decentralized
Network



Multiple nodes store
data

Long-term Store
of Value



Asset, currency, or
commodity

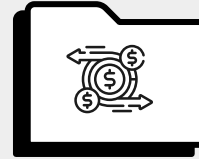
Differentiation Between Currencies



Cryptocurrency



Multiple nodes store and process data



Regular Currency



Data is processed and stored by single node



Dataset Facts

Source : Yahoo
Finance!



Bitcoin Historical Prices-USD

Open - Close

High - Low

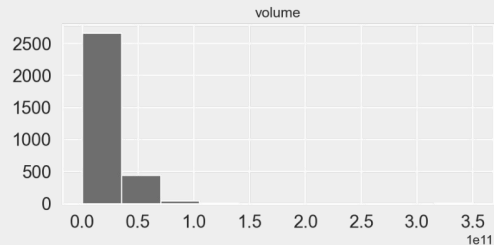
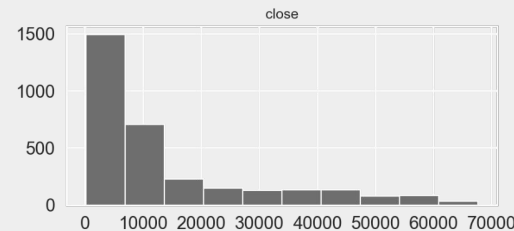
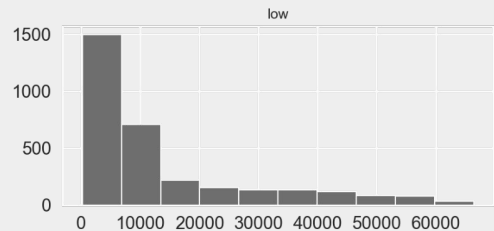
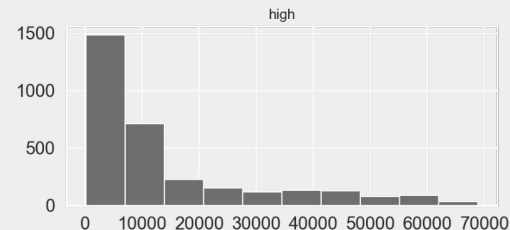
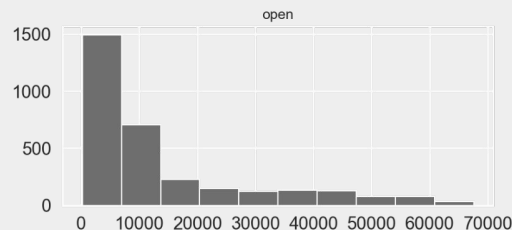
Volume

Timeline:

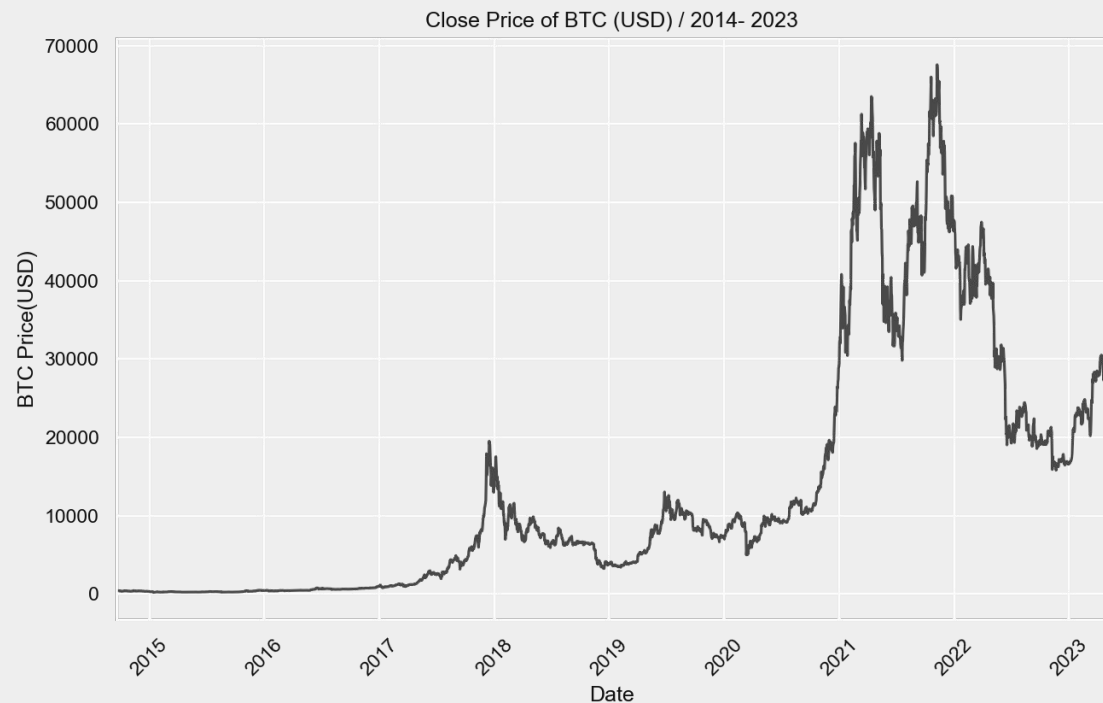
Sep, 2014 → May, 2023



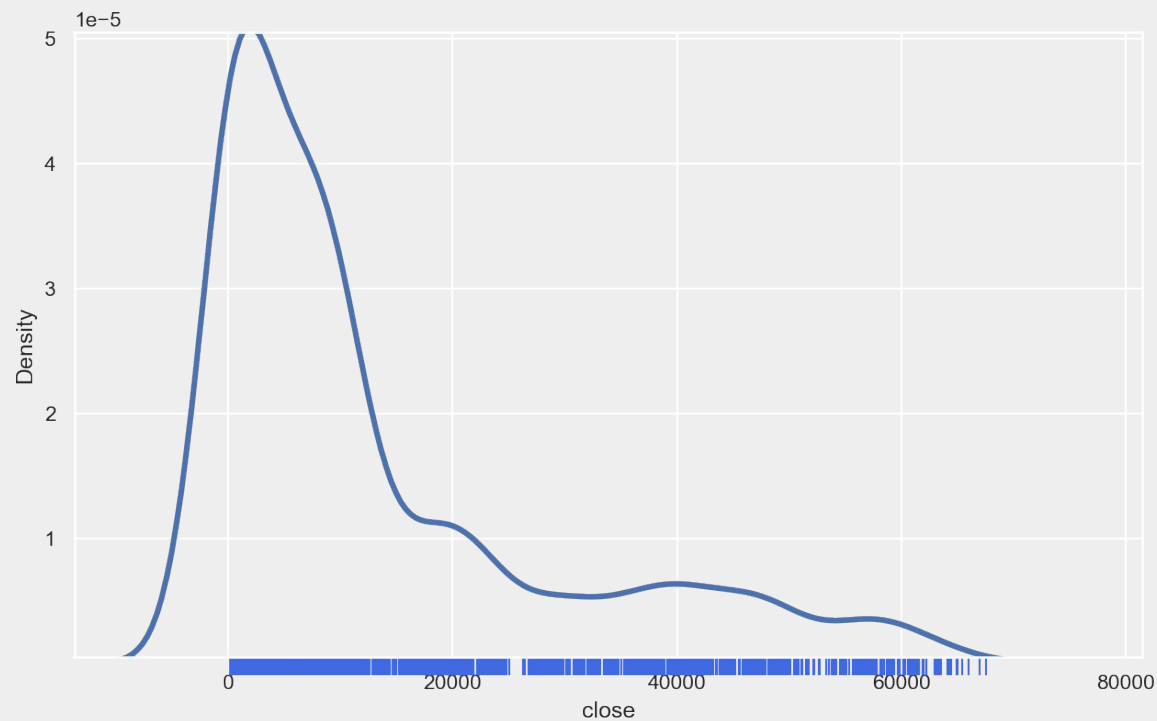
Normality All Columns (open, high, low, close, volume)



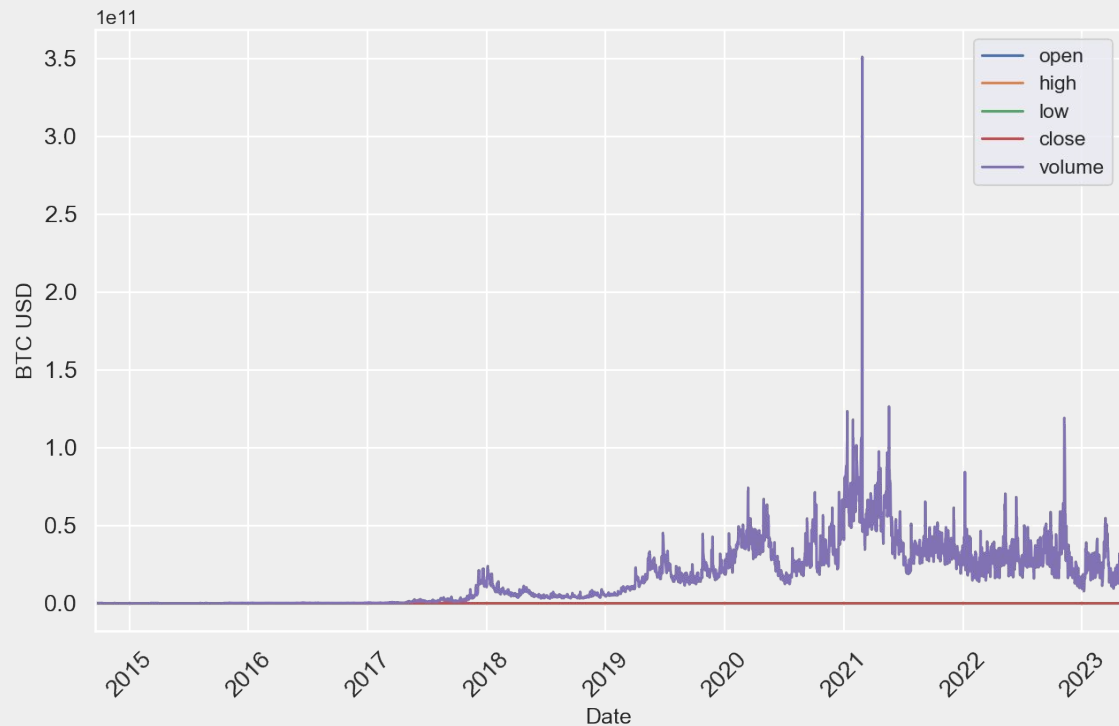
Close Price BTC Over Time



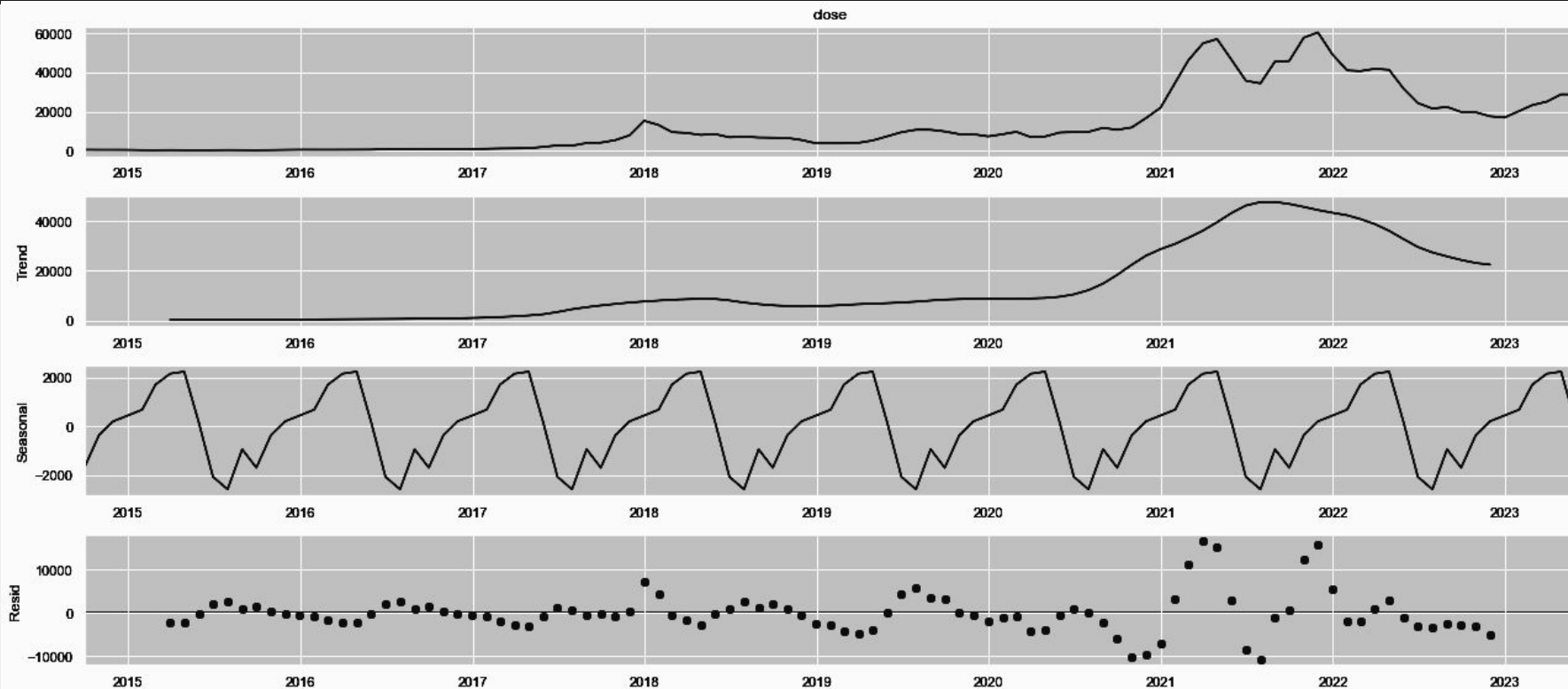
KDE Close Price of BTC

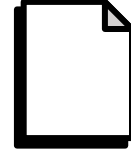
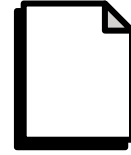
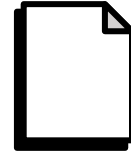
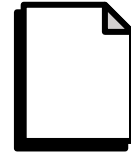
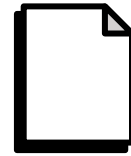
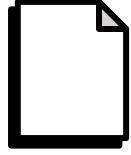
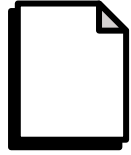
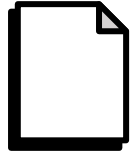
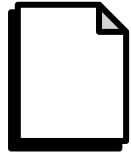
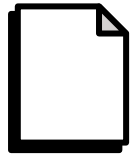


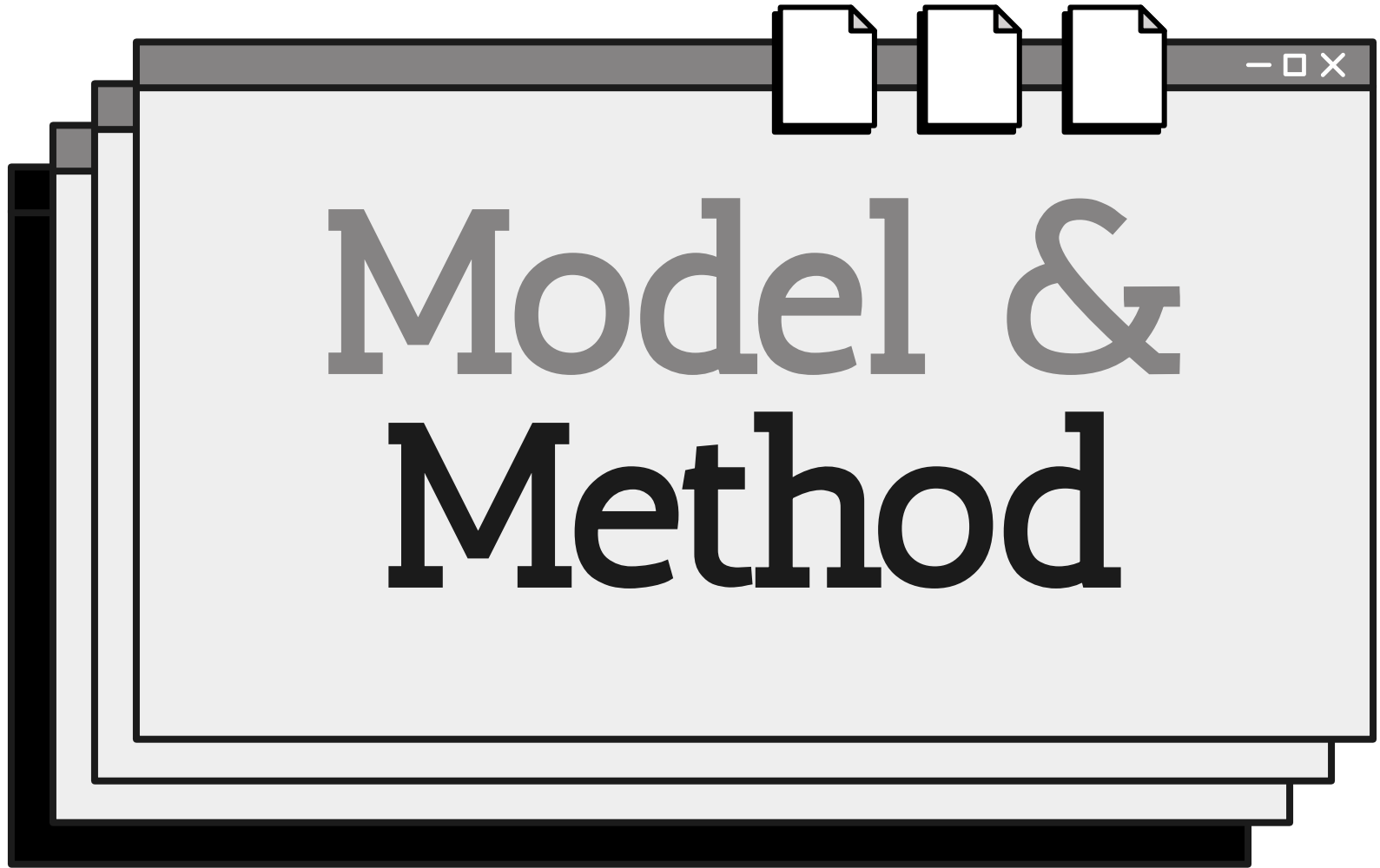
The Highest Volume \$ 35 B in 2021



Decomposition Monthly Cryptocurrency





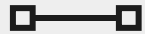


A grayscale image featuring several Bitcoin coins in the foreground, some stacked and others scattered. In the background, there are blurred banknotes. Overlaid on the center is a white rectangular window with a black border and a title bar containing standard window controls (minimize, maximize, close).

Time Series SARIMAX

Let's Review Some Statistics Forecast Measures

RMSE - 3230



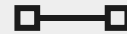
Expected Root
Mean Squared
Error

AIC - 1510



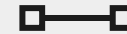
Akaike
Information
Criteria

RMSE- 4333



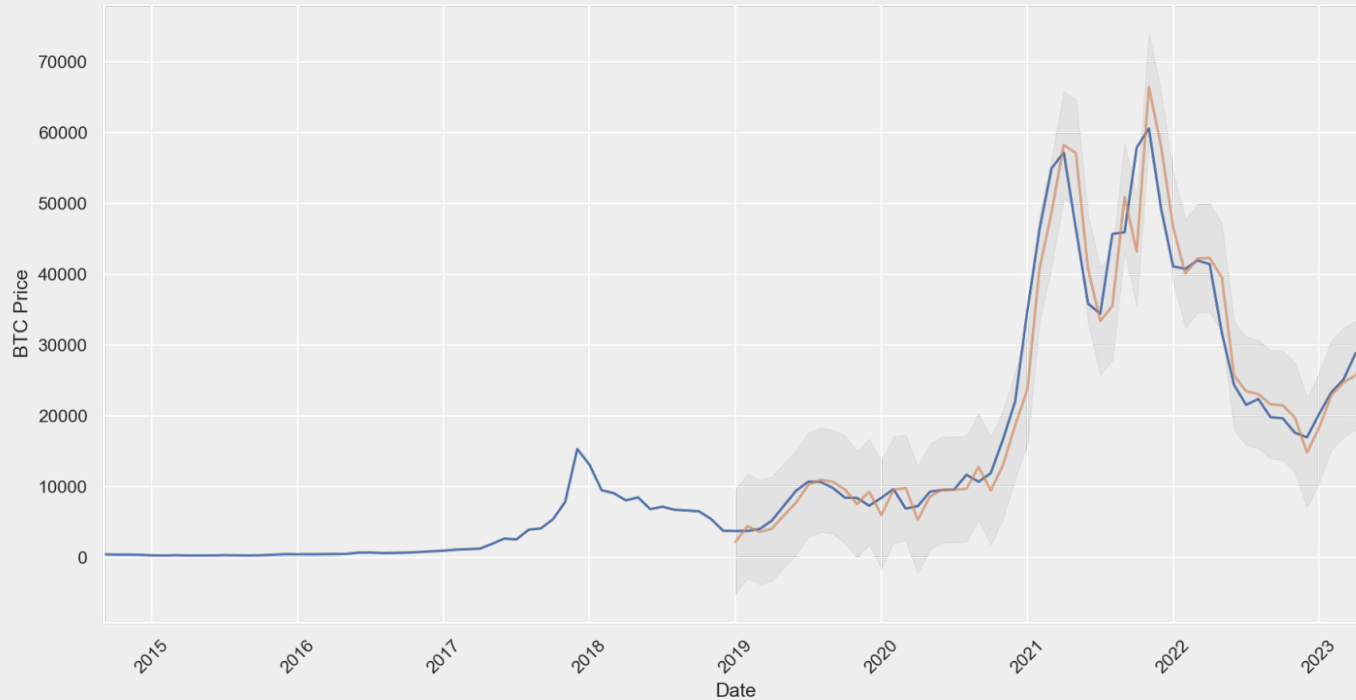
Forecast Root
Mean Squared
Error

CI - 95%



Confidence
Interval

Prediction After 2019

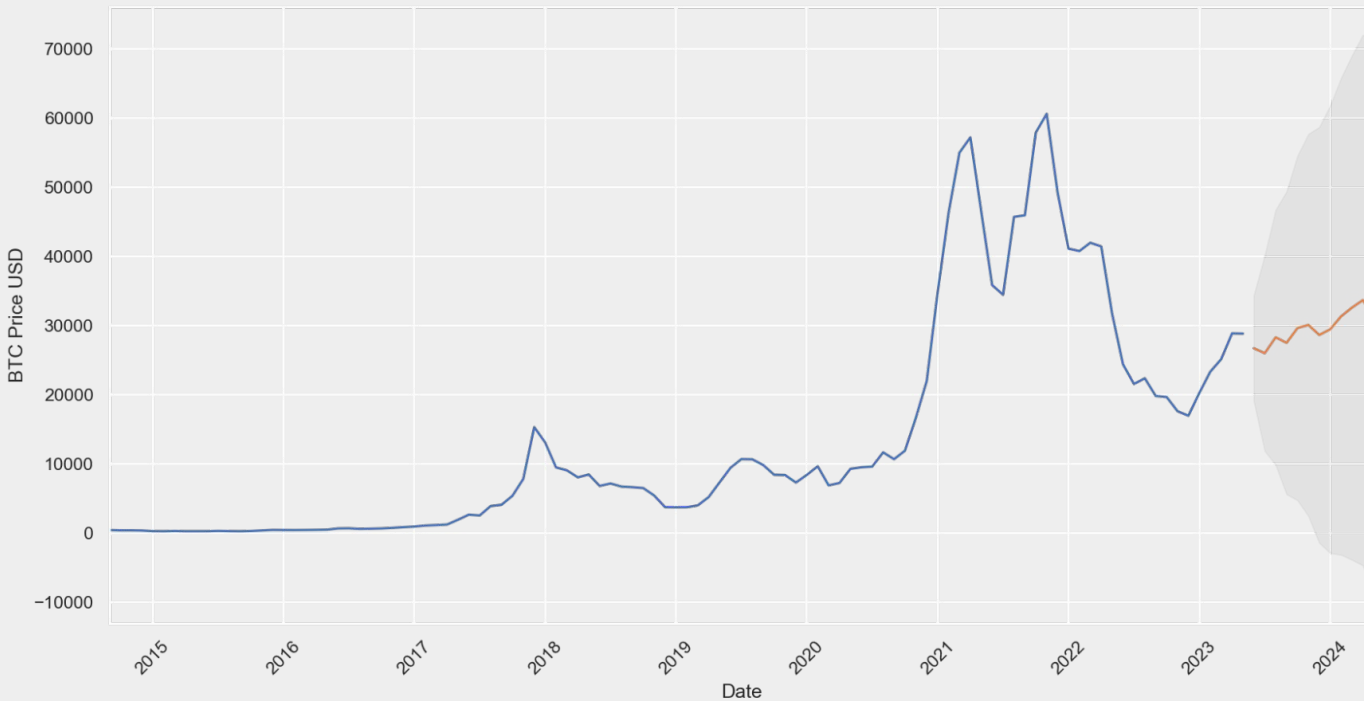




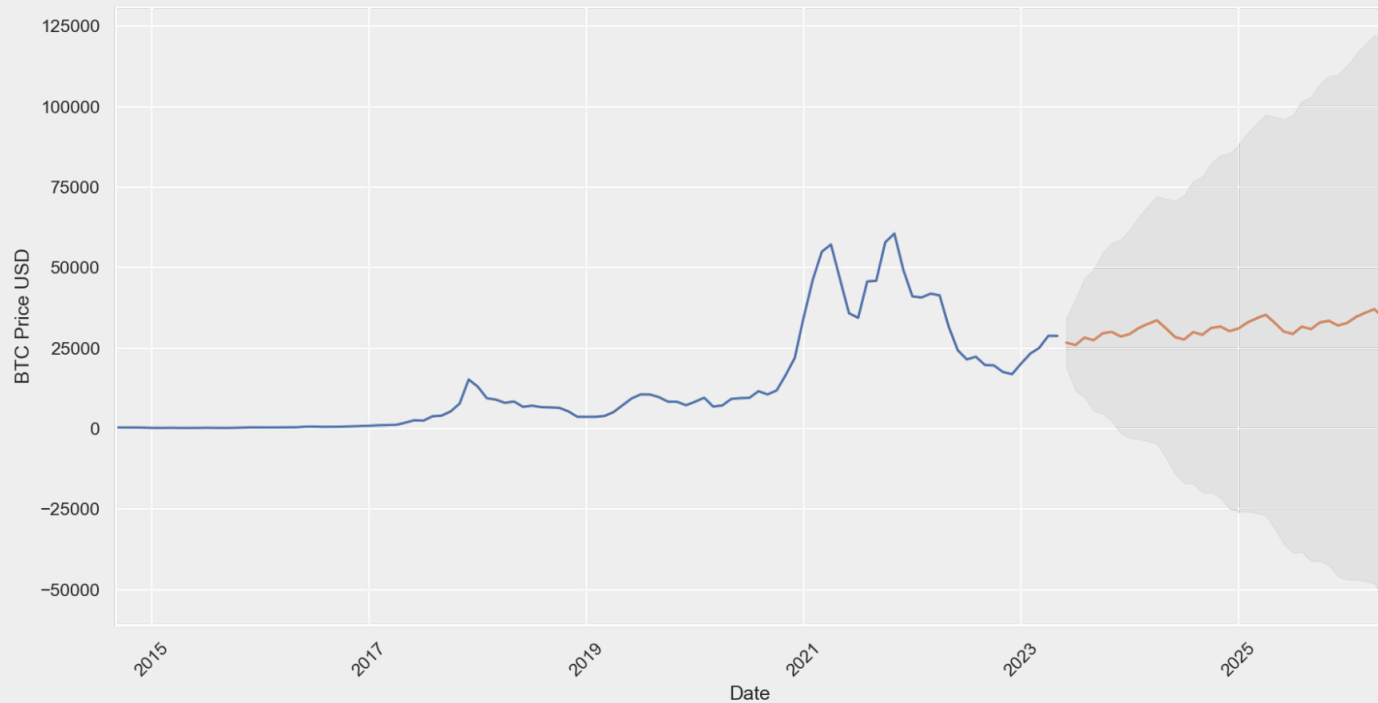
The image features a stylized graphic of a document window. It has a light gray background with a dark gray border. At the top, there are three white tabs with black outlines, each containing a small black square. To the right of the tabs is a dark gray header bar with a white minus sign, a white square, and a white 'X' icon. The word "Evaluation" is written in a large, bold, black serif font in the center of the window. On the right side of the image, there is a vertical black and white checkered pattern.

Evaluation

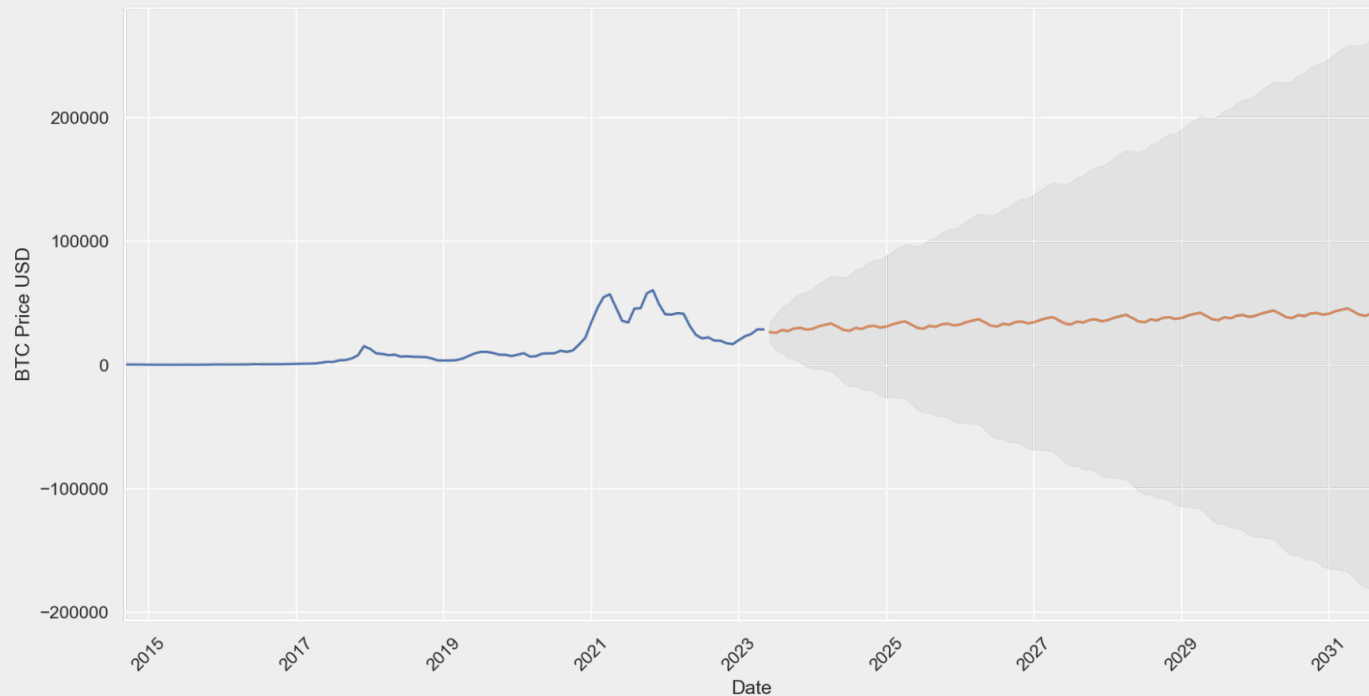
1 Yearly Forecast - 2024 Prediction



3 Yearly Forecast - 2025 Prediction



8 Yearly Forecast - 2031 Prediction





2024



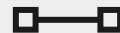
\$30- 35K

2025

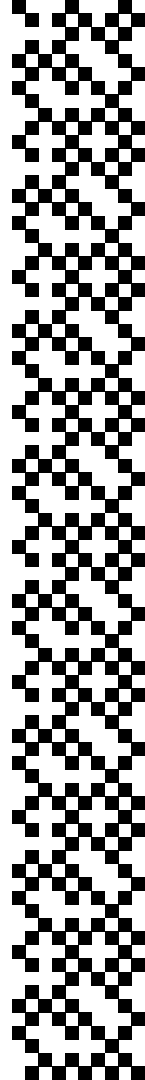


\$35- 40K

2031



\$40K +



Factors That Affect the Price of 1 Bitcoin



Supply



Demand



Cost of production



Number of competitors



Regulation

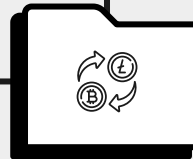


Media coverage

Other Factors

Macro and
microeconomic reasons

Global effects



Inflation, interest rate etc

Business social platform

Advantages & Disadvantages

Vontobel

Advantages

Transparency

Accessibility

Decentralization

Low Risk

Speed

Disadvantages

Legal Risks

Volatility

Possible funding of
illegal activities

Losing Keys

Irreversibility

BTC Around the Globe



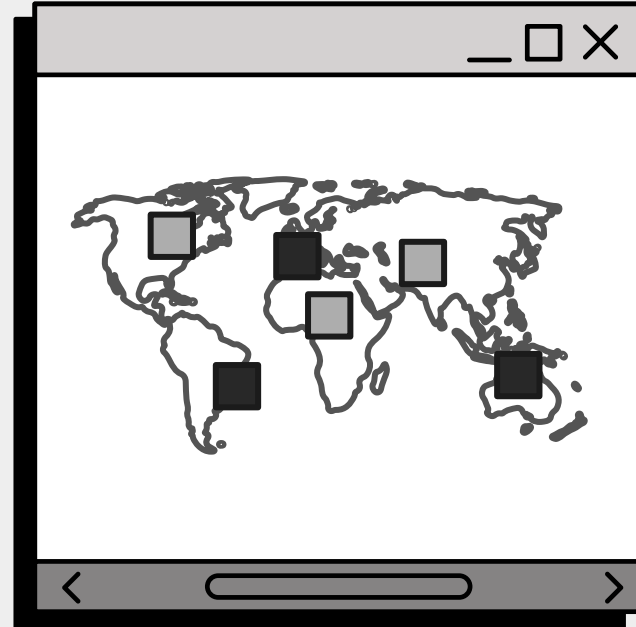
India



41 % Brazilian has own crypto



China



Thanks!

Do you have any questions?



github.com/drykvf



linkedin.com/in/hera-k



References

- ❖ <https://finance.yahoo.com/quote/BTC-USD/>
- ❖ <https://bitcoin.org/en/how-it-works>
- ❖ https://en.wikipedia.org/wiki/History_of_bitcoin
- ❖ <https://www.fidelity.com/learning-center/trading-investing/crypto-vs-cash>